

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: June 25, 1996
Date Received: June 20, 1996
Project: 3200 Self Monitor, PO #53708
Date Samples Extracted: June 24, 1996
Date Extracts Analyzed: June 25, 1996

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
USING METHOD 6010**

**Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)**

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M53708	0.57	1.2	0.92	0.48
Method Blank	<0.05	<0.05	<0.05	<0.05

FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS**

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Project: 3200 Self Monitor, PO #53708

**QUALITY ASSURANCE RESULTS
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 69948 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.57	0.81	35a	0-20
Copper	mg/L (ppm)	1.2	1.5	22a	0-20
Nickel	mg/L (ppm)	0.92	1.1	18	0-20
Zinc	mg/L (ppm)	0.48	0.53	10	0-20

Laboratory Code: 69948 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.57	89	86	80-120	3
Copper	mg/L (ppm)	5	1.2	86	86	80-120	0
Nickel	mg/L (ppm)	10	0.92	89	87	80-120	2
Zinc	mg/L (ppm)	5	0.48	86	84	80-120	2

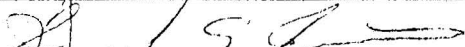
Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	97	97	80-120	0
Copper	mg/L (ppm)	5	96	95	80-120	1
Nickel	mg/L (ppm)	10	96	96	80-120	0
Zinc	mg/L (ppm)	5	95	95	80-120	0


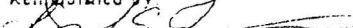
a - The sample contained particulates. The high variability is attributable to this sample type.

KN5 AT
6.20.96
2:15

Send Report To:

SITE NO.		PROJECT NAME		PURCHASE ORDER #	
7238		3200 Self Monitor		IN 53708	
SAMPLERS (signature)				PROJECT LOCATION	
				3200 6th Ave S.	
REMARKS				SAMPLE DISPOSAL INFORMATION	
				<input type="checkbox"/> Dispose after 30 days	
				<input checked="" type="checkbox"/> Return Samples	
				<input type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	Gerald Thompson	A.C.W	6/20/96	1:45pm
Received by: 	Cathy Downing	FBI	6/20/96	1:45
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

June 25, 1996

INVOICE # 96ACU0625-1
DUPLICATE COPY

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project 3200 Self Monitor, PO #53708: Results of testing requested by Gerry Thompson, Project Manager for material submitted on June 20, 1996.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

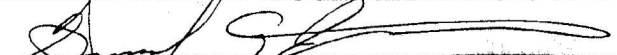
\$ 65.00

Amount Due

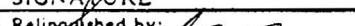
\$ 65.00

SAMPLE CHAIN OF CUSTODY

Company ALASKAN COPPER WORKS Contact GERALD THOMPSON
Address 628 Hanford Street
City, State, Zip Seattle, WA 98134
Phone # (206) 382-8375 Fax (206) 382-7335 Date _____

SITE NO.		PROJECT NAME		PURCHASE ORDER #	
7238		METRO SELF MONITOR		M53790	
SAMPLERS (signature)				PROJECT LOCATION	
				3200 6 th Ave S.	
REMARKS				SAMPLE DISPOSAL INFORMATION	
				<input checked="" type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input checked="" type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	GERALD A. Thompson	ACW	6/27/84	10:45
Received by: John P. Wright	John P. Wright	F+B Inc	6-27-96	10:45
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D
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3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

June 25, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on June 20, 1996
from your 3200 Self Monitor, PO #53708 project

We appreciate this opportunity to be of service to you and hope you will call if you
should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

keh
Enclosures
ACU0625R.DOC